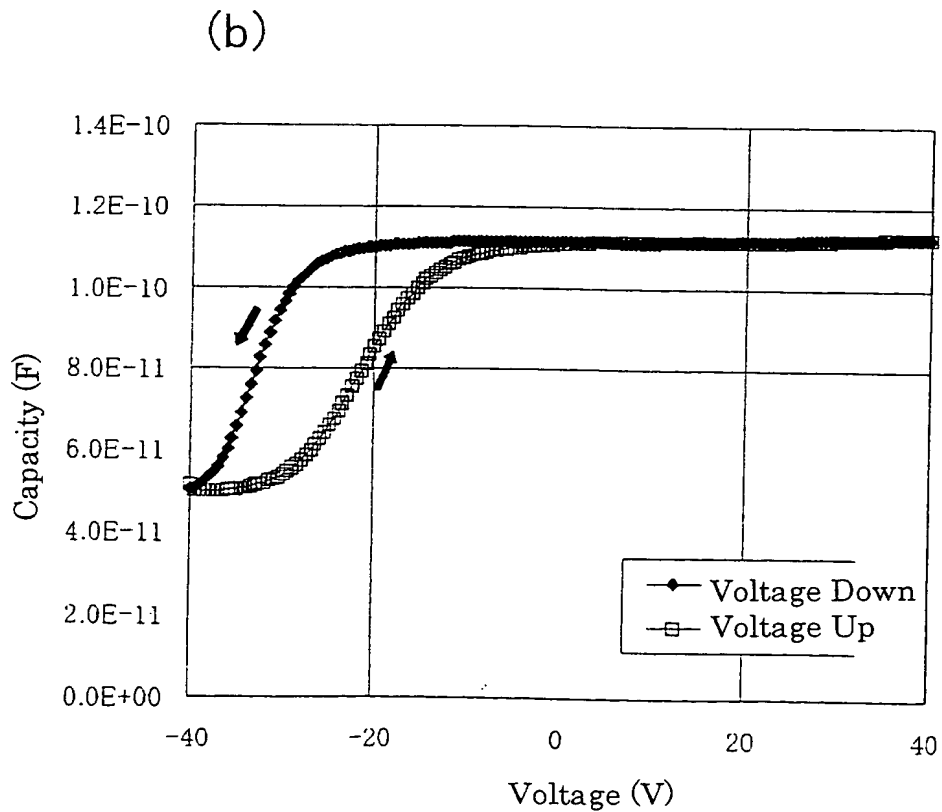
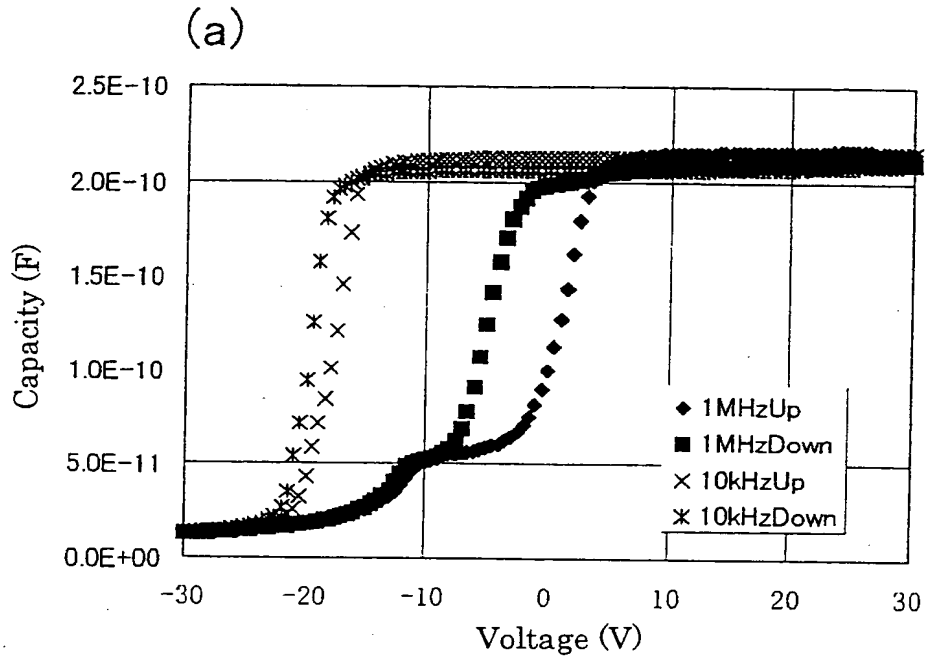




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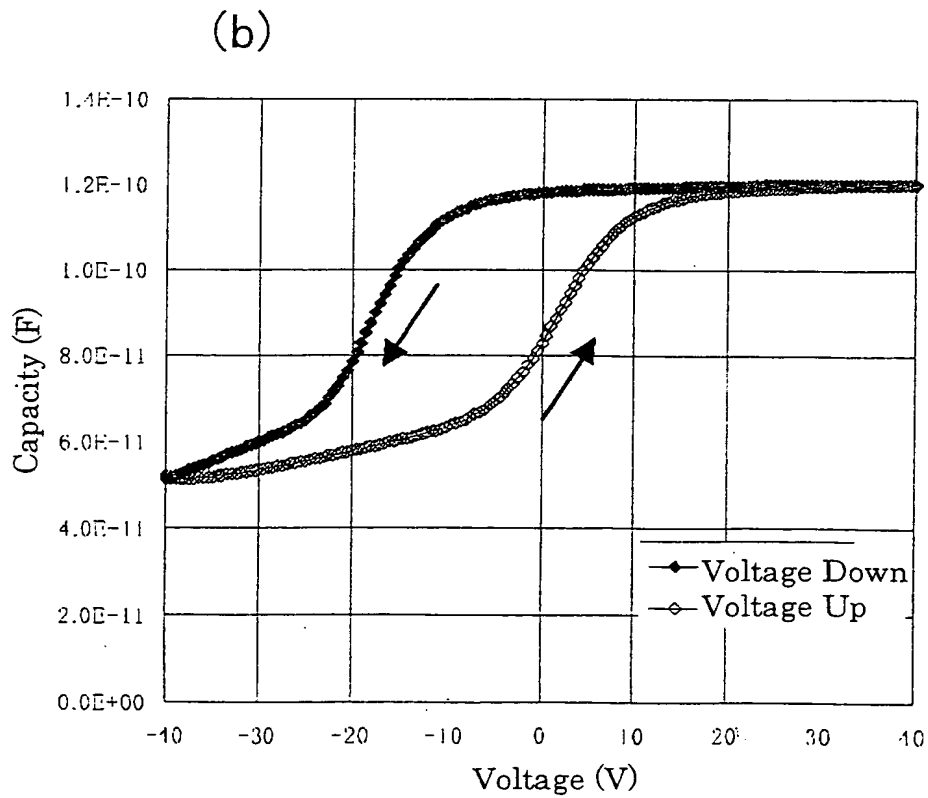
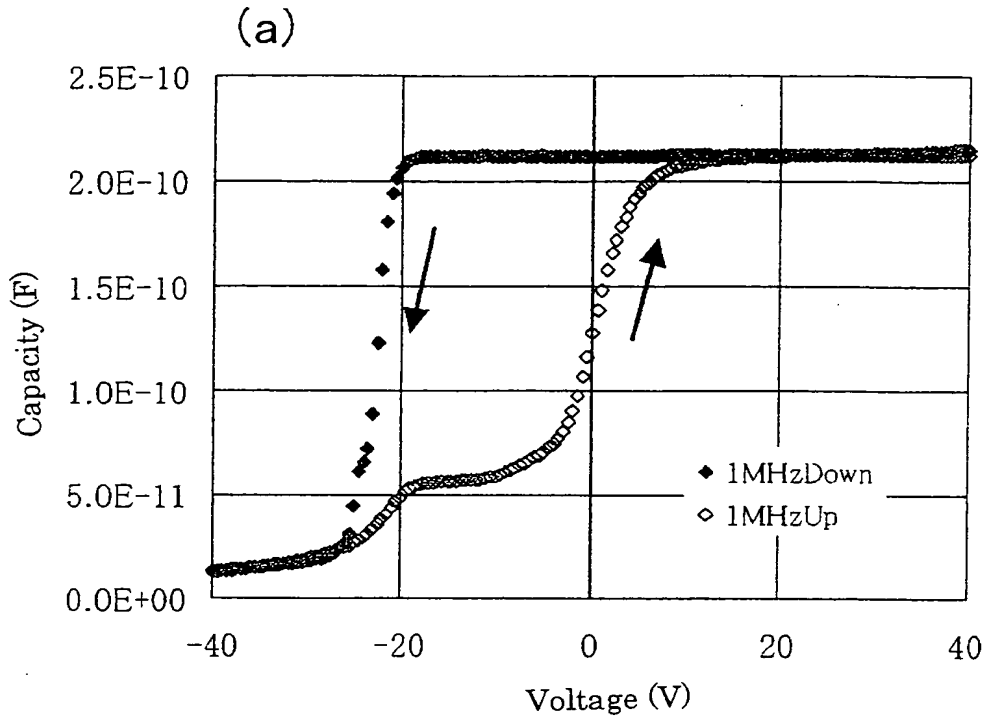
FIG. 2



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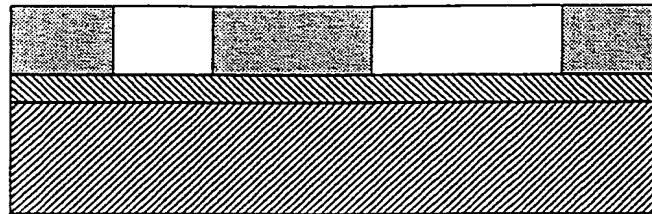
FIG. 3



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FIG. 5

Attachment of metal mask to sample



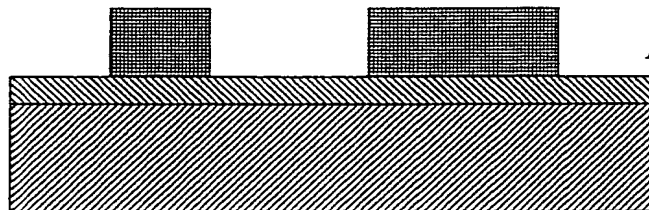
Metal mask

Borazine polymer

Silicon substrate

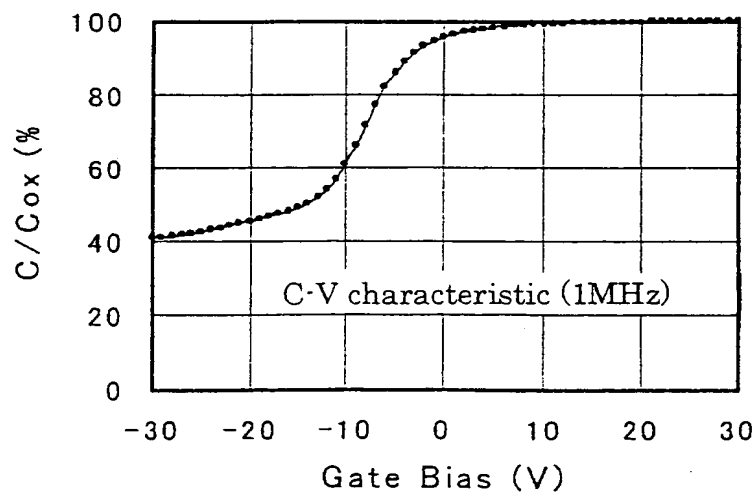
(a)

Removal of mask after evaporation of aluminum



Aluminum electrode

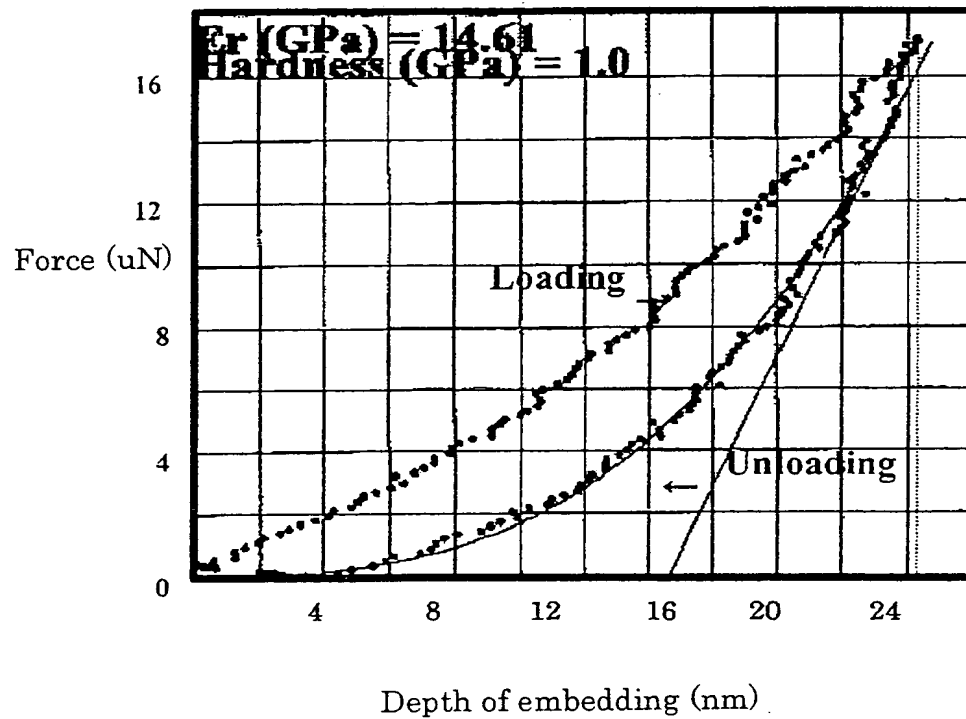
(b)



(c)

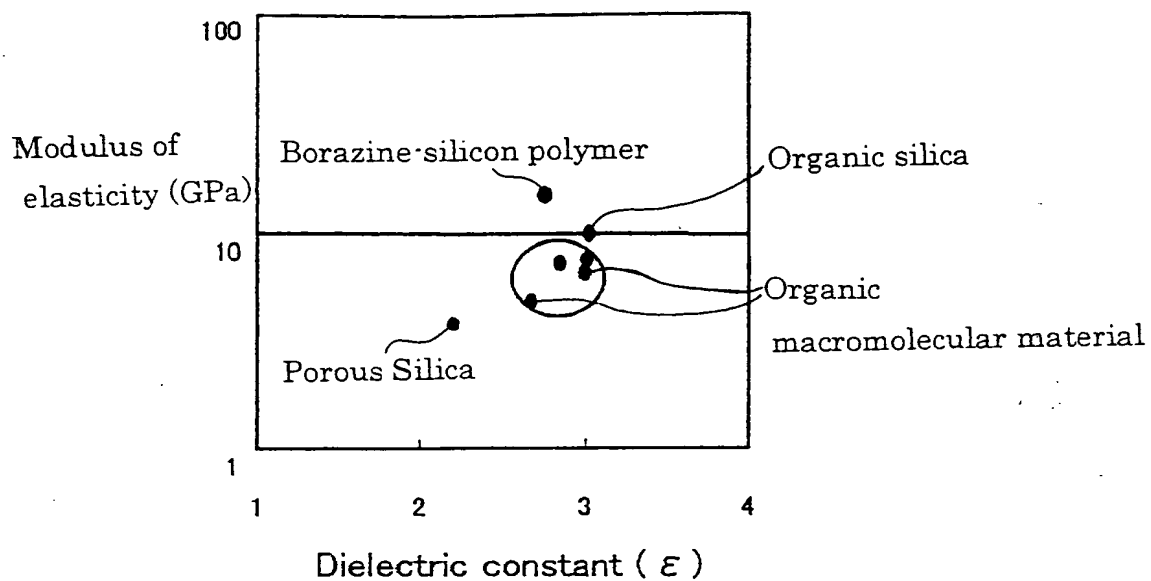
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FIG. 6

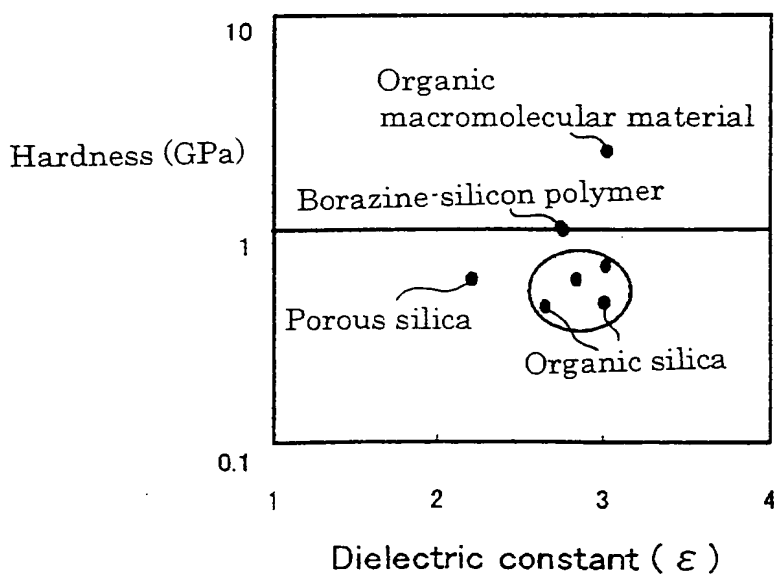


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FIG. 7



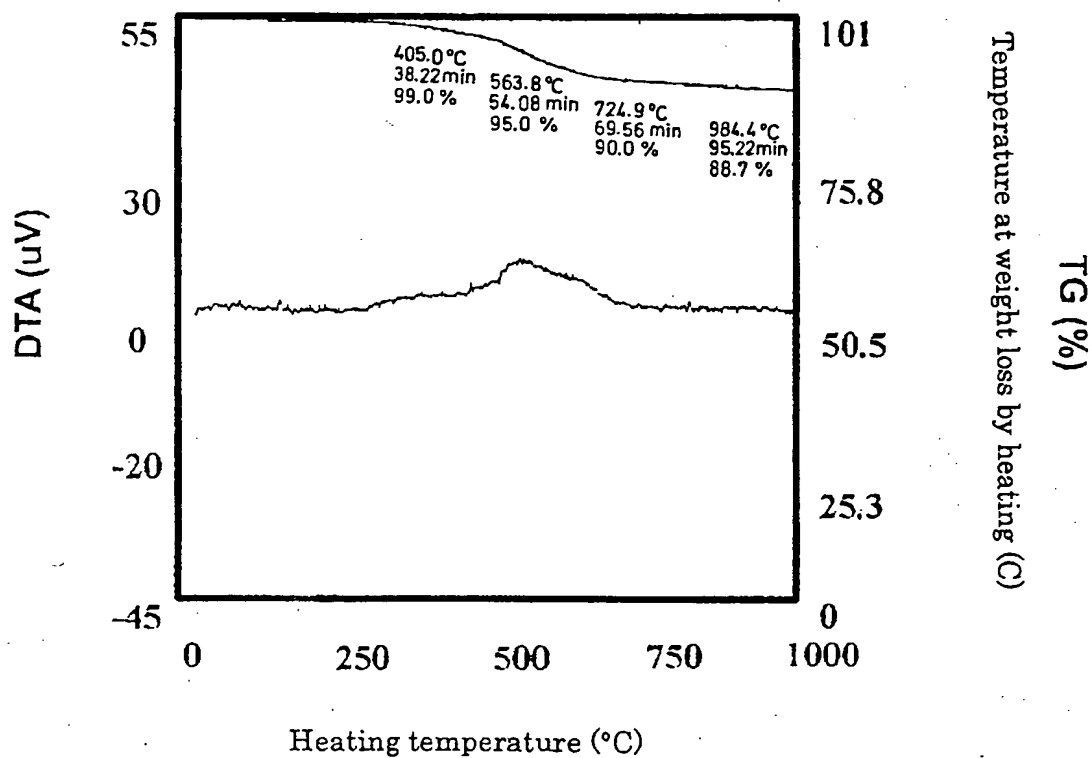
(a) Modulus of elasticity



(b) Hardness

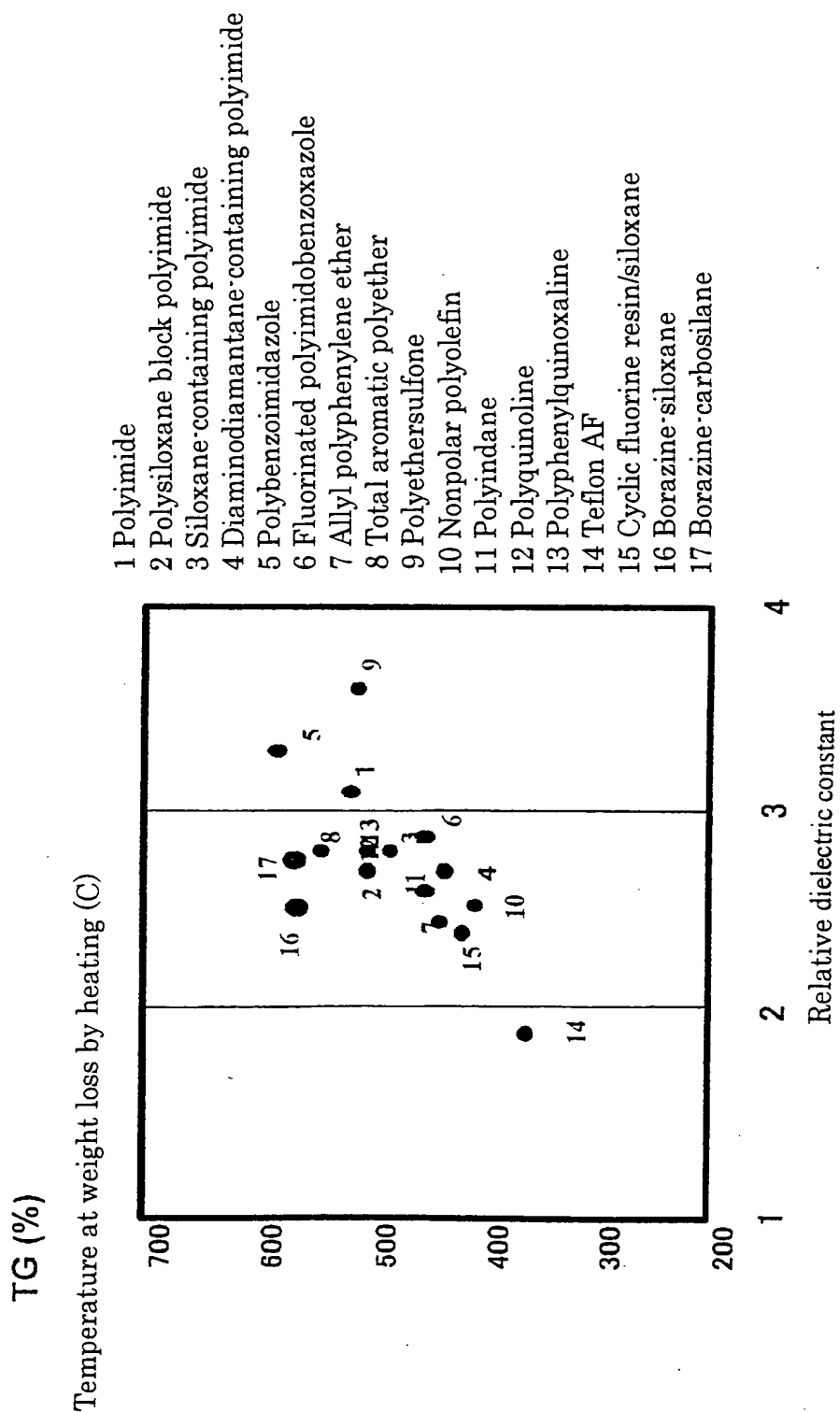
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FIG. 8



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FIG. 9



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FIG. 10

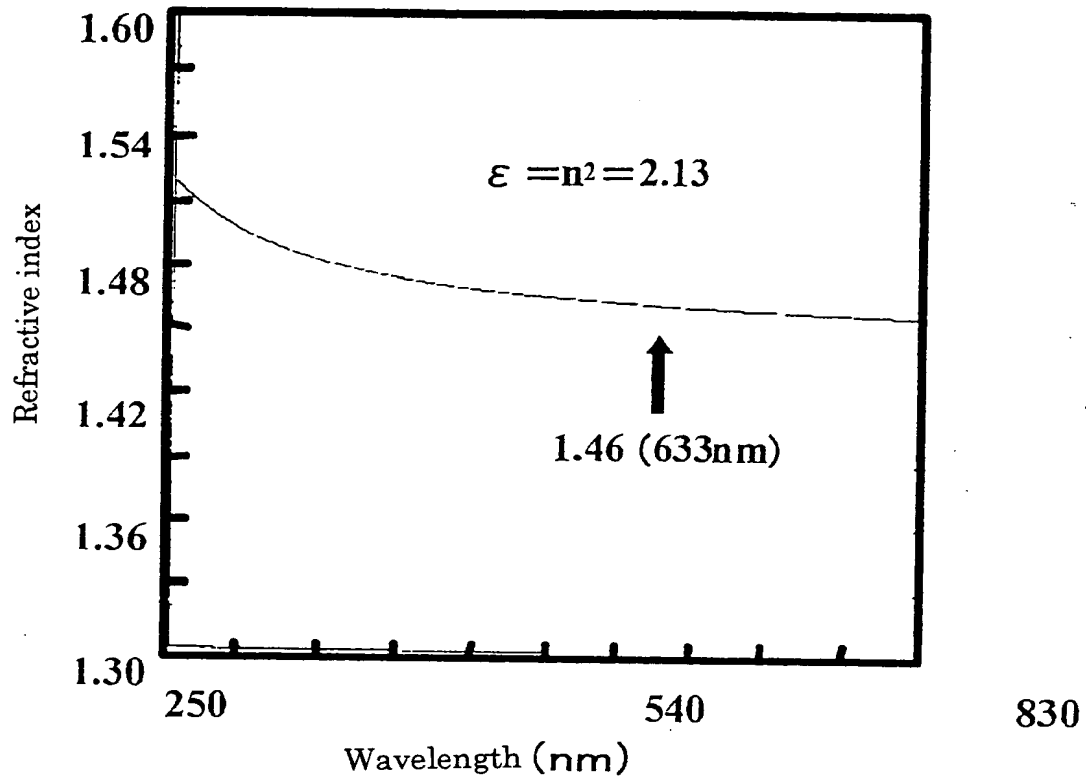
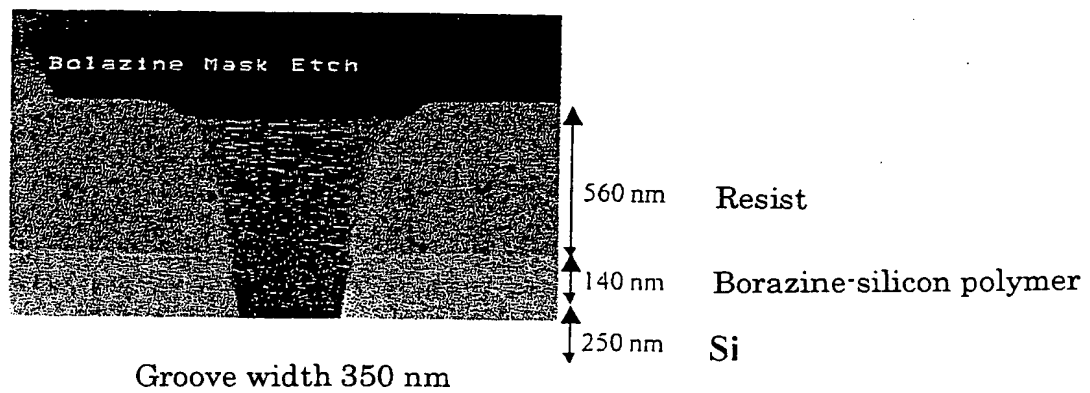
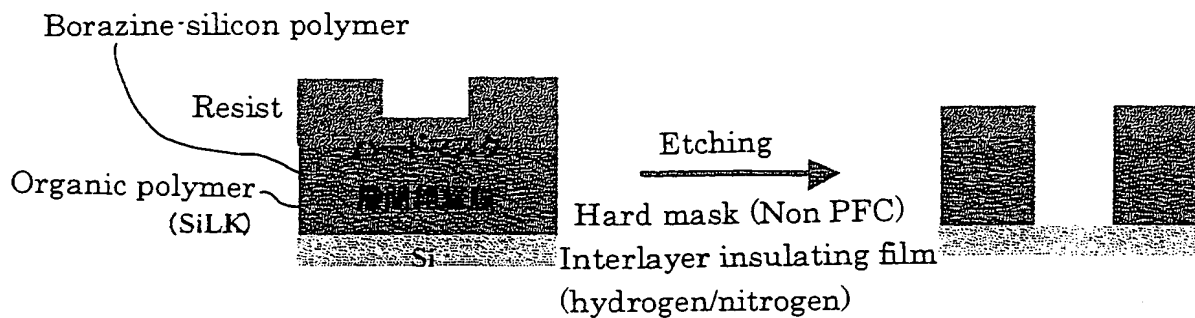


FIG. 11

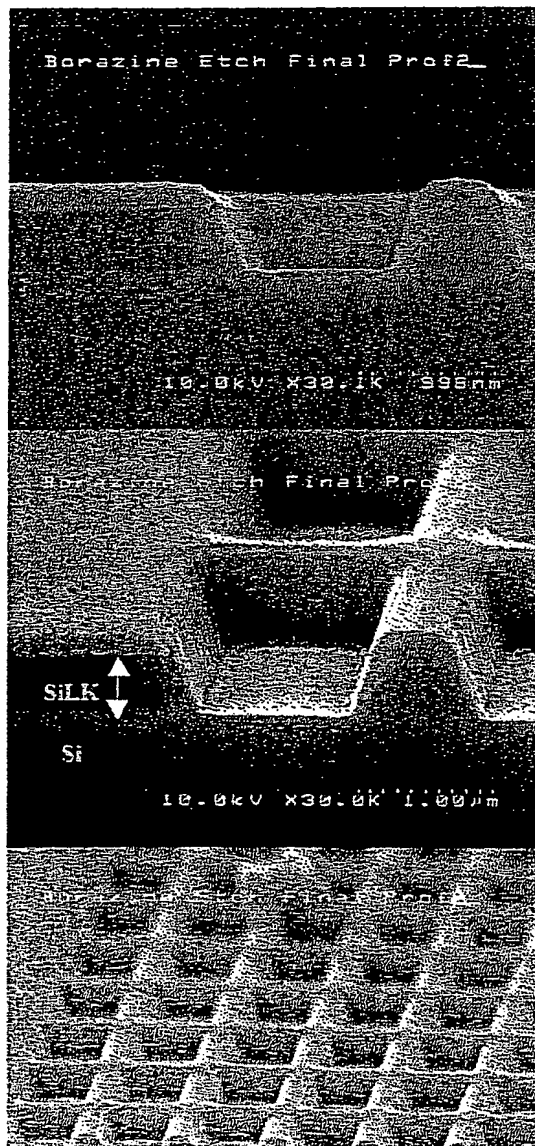


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FIG. 12



(a)



(b)

(c)

(d)

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FIG. 13

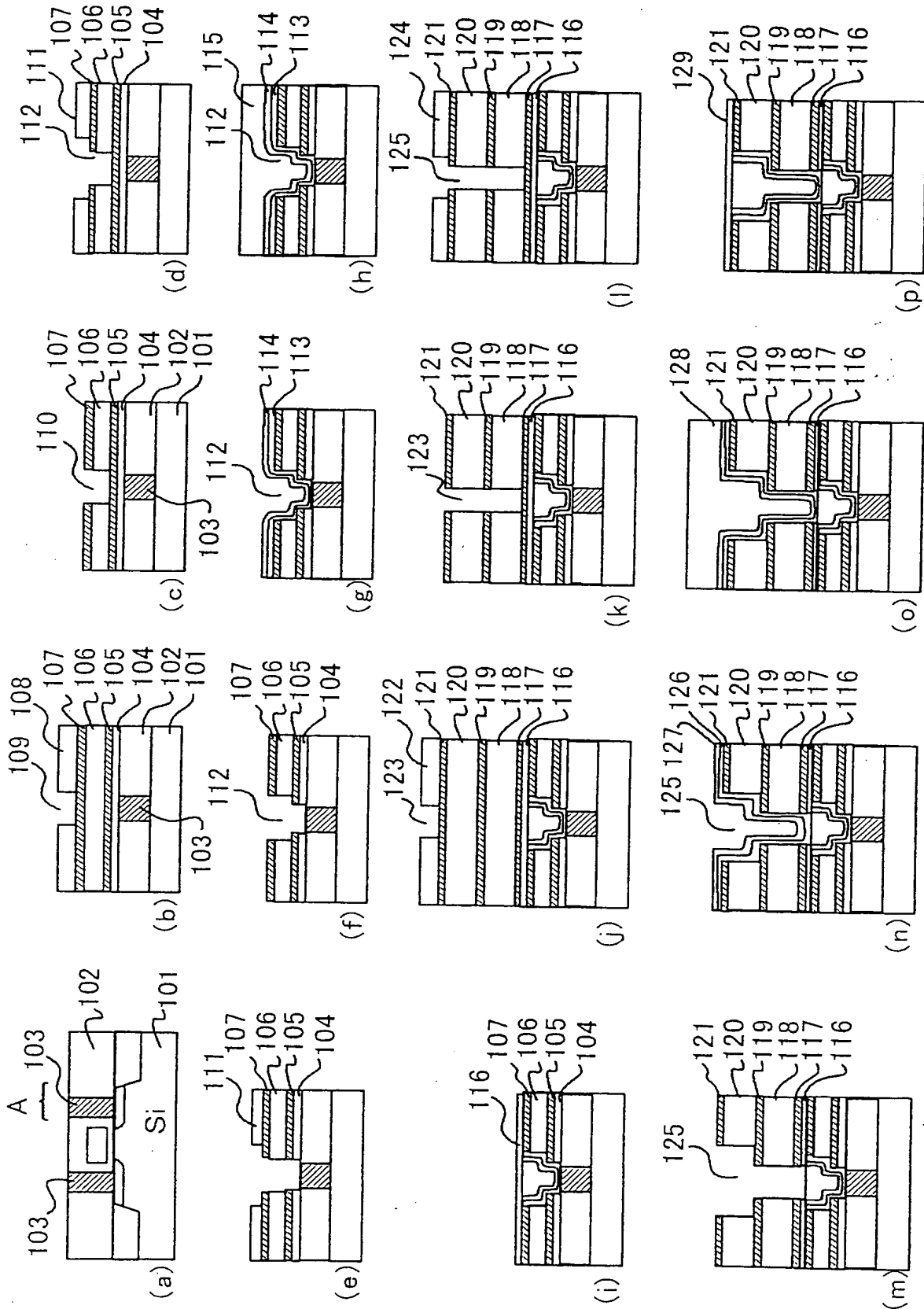
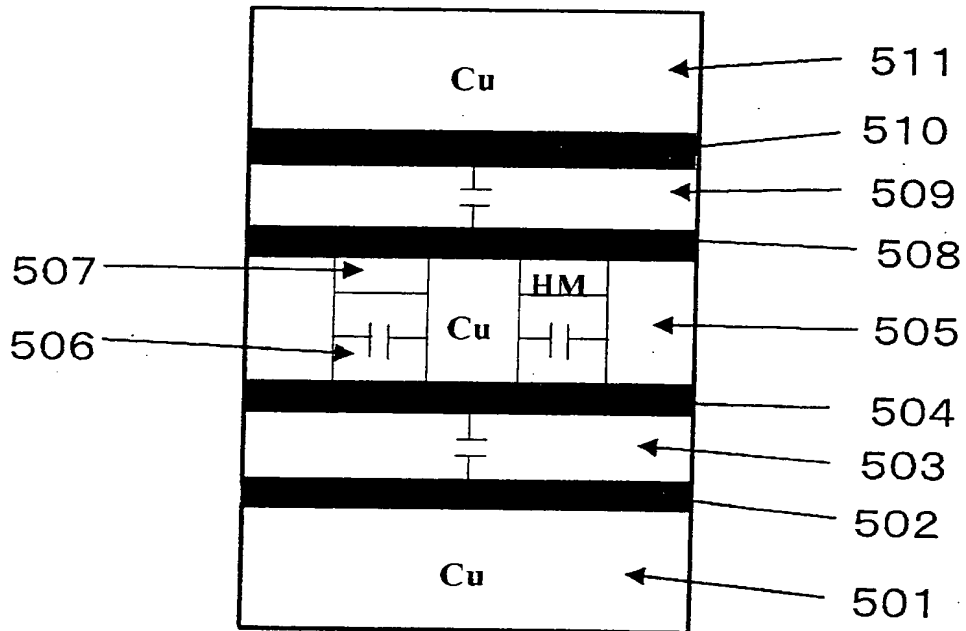
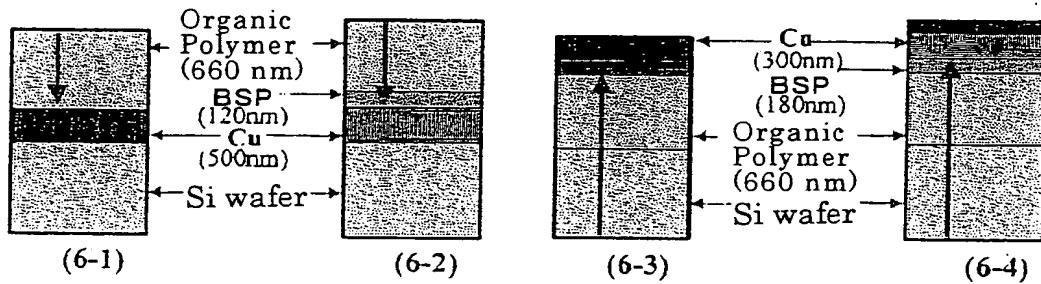


FIG. 14



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FIG. 18



	Structure	Cu atoms/cm ³
1	Si / Cu(500nm) / OP(660nm)	5×10^{18}
2	Si / Cu(500nm) / BSP(120nm) / OP(660nm)	8×10^{17}
3	Si / OP(660nm) / Cu(300nm)	6×10^{17}
4	Si / OP(660nm) / BSP(180nm) / Cu(300nm)	1×10^{17}

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FIG. 19

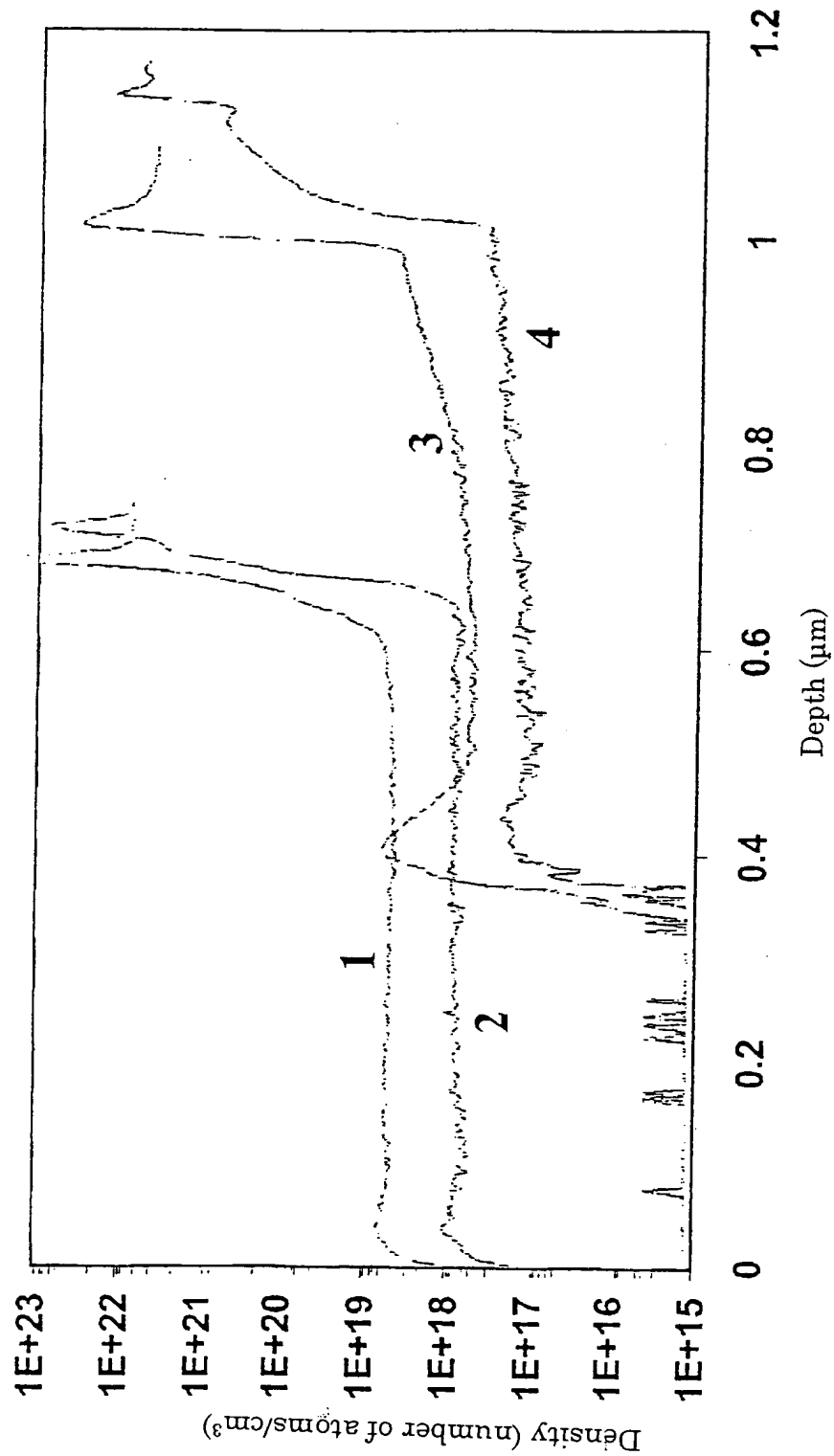
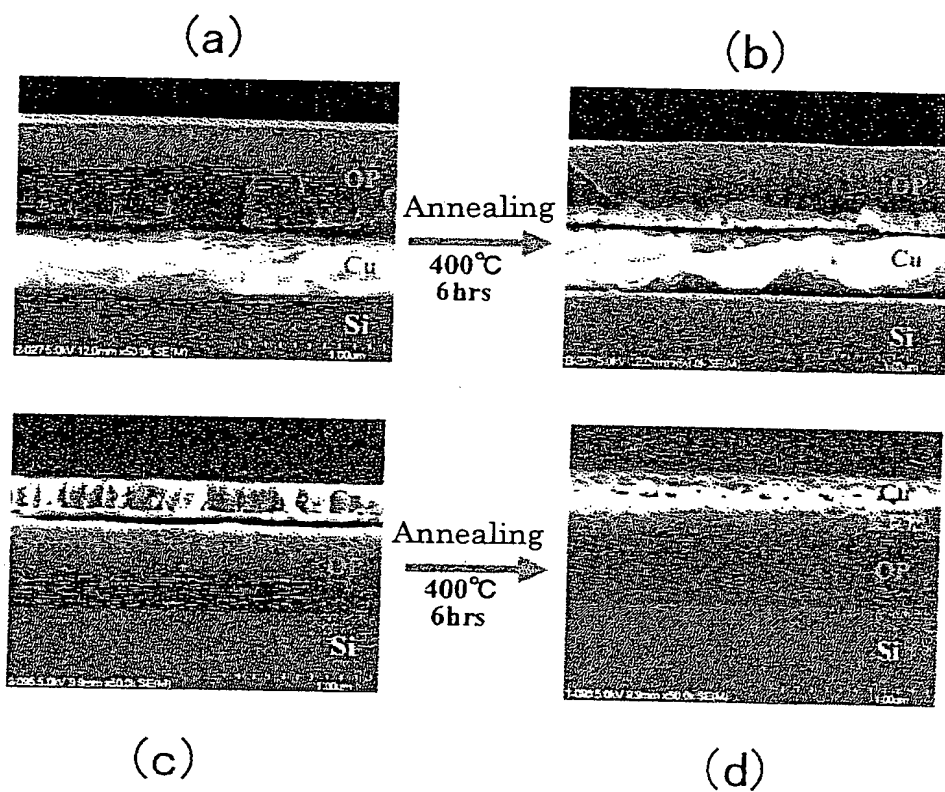
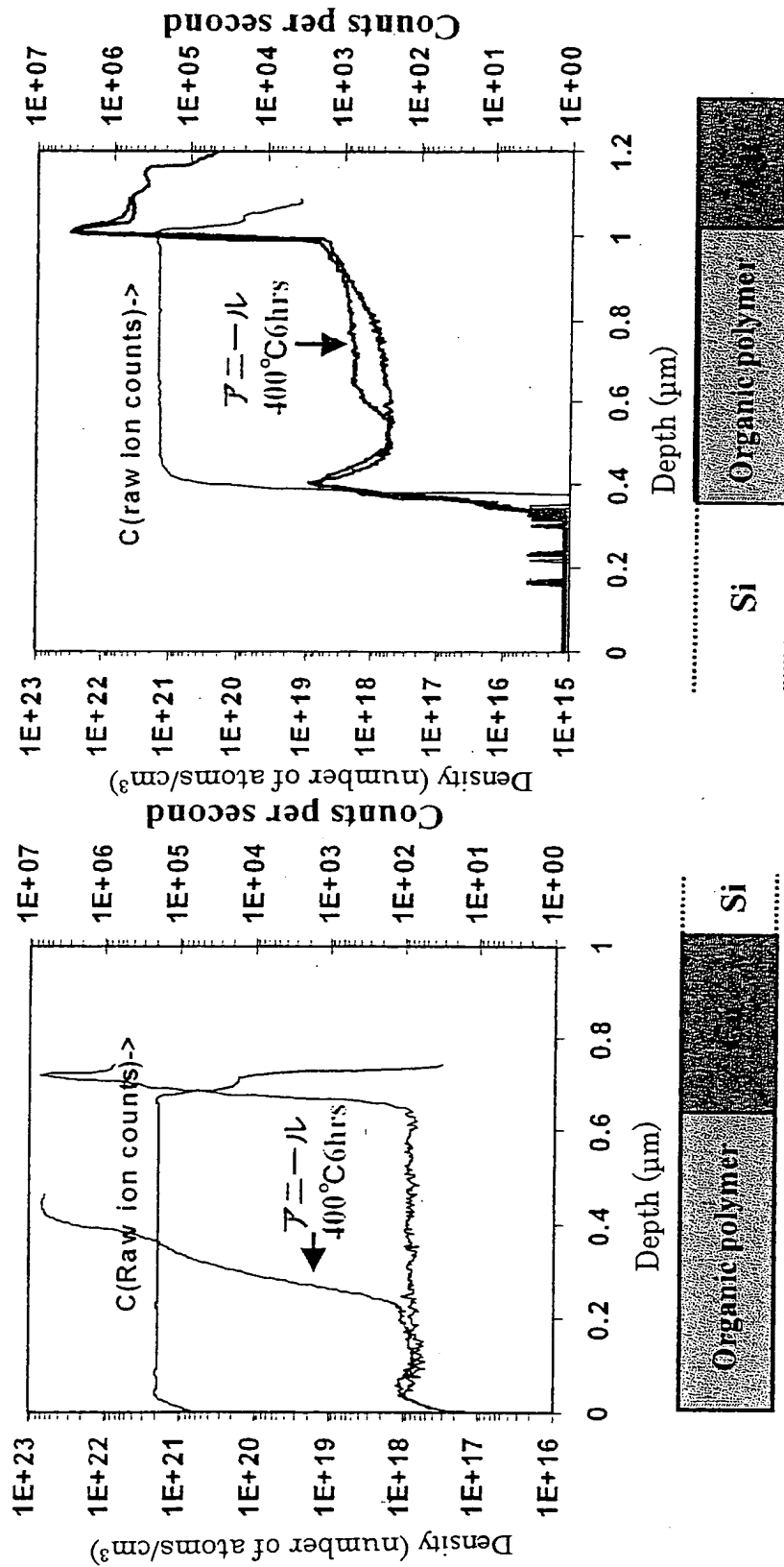


FIG. 20



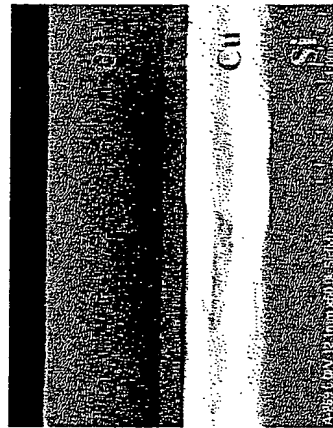
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FIG. 21

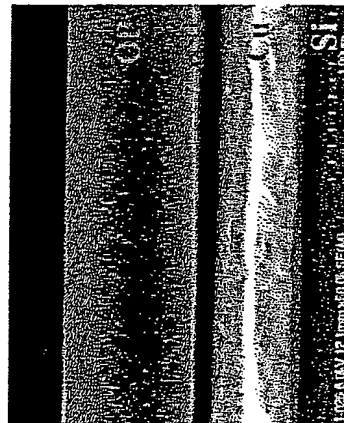


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FIG. 22

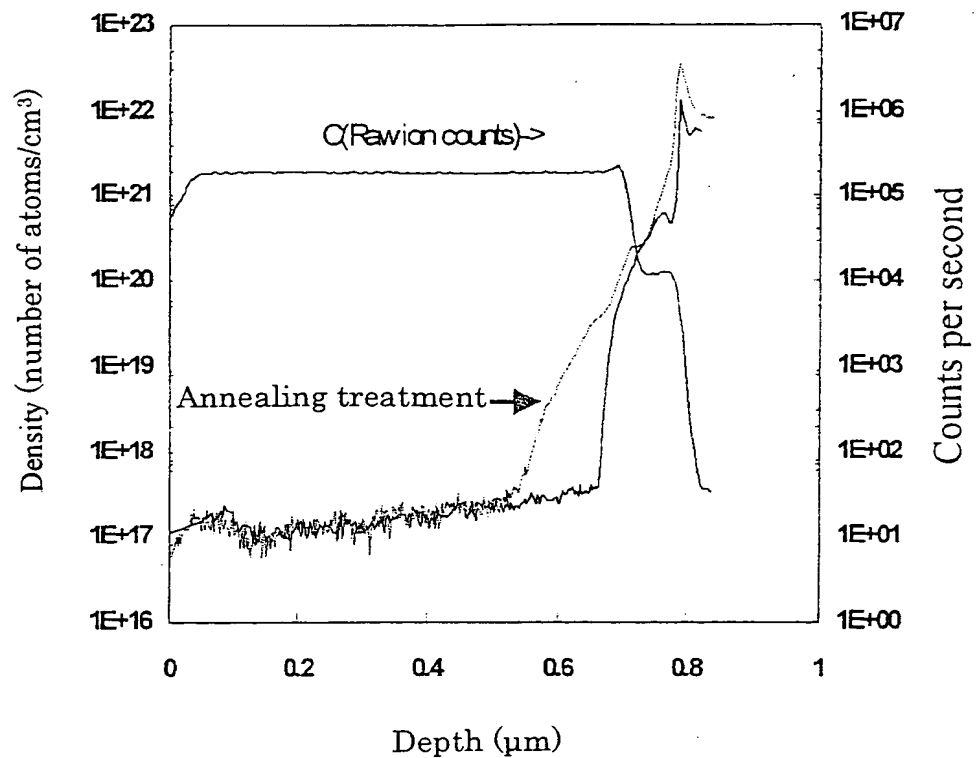


Annealing
↑
400°C - 6hrs



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FIG. 23



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